

SUPPORT FOR THE AMENDMENTS

Claims 1-9 are amended to use wording and structure consistent with U.S. patent law practice.

Support for the amendment of Claims 1, 5 and 6 is found on page 6, lines 1-2, in the specification.

Support for Claim 10 is found on page 4, lines 4-6, in the specification.

Support for Claim 11 is found on page 5, lines 1-2, in the specification.

Support for Claim 12 is found on page 5, lines 4-14, in the specification.

Support for Claim 13 is found on page 5, lines 39-41, in the specification.

Support for Claim 14 is found on page 10, lines 20-22, in the specification.

Support for Claim 15 is found in Examples A1.1-3, beginning on page 22 in the specification.

Support for Claim 16 is found on page 27, line 18, in the specification.

Support for Claim 17 is found on page 28, lines 13-14, in the specification.

No new matter is believed added to this application by entry of this amendment.

Upon entry of this amendment, Claims 1-17 are active.

REMARKS/ARGUMENTS

The claimed invention provides a hyperbranched polyester comprising ethylenically unsaturated groups, obtained by reacting at least one compound having at least one ethylenic double bond with at least one hyperbranched polyester. The hyperbranched polyester is obtained by condensing at least one dicarboxylic acid or derivative thereof with at least one at least trifunctional alcohol; or by condensing at least one tricarboxylic or higher polycarboxylic acid or derivative thereof with at least one diol. In either method a molar

ratio of hydroxyl groups of the at least one at least trifunctional alcohol or at least one diol to carboxyl groups of the at least one dicarboxylic acid or at least one tricarboxylic or higher polycarboxylic acid, respectively, is from 1.5/1 to 1/1.5.

Applicants respectfully note that Claim 1 is amended herein to recite the molar ratio range of hydroxyl group to carboxylic acid group. Applicants submit that a hyperbranched structure as according to the claimed invention is only obtained when a molar ratio of hydroxyl groups to carboxyl groups as described is utilized. The claimed ratio leads to maximum hyperbranch polymer structure as a major portion of both hydroxyl and carboxyl groups are forced to react and thus lead to branching. When the ratio is outside the claimed range, a large excess hydroxyl or carboxyl groups is present and as a result a non-hyperbranched polymer or no polymer may be obtained.

The rejection of Claims 1-5 and 7-9 under 35 U.S.C. 102(b) over Saitoh et al. (U.S. 5,566,027) is respectfully traversed.

Saitoh describes a composition containing a polyfunctional urethane-modified polyester (meth)acrylate of a polyester oligomer and a plurality of (meth)acryoyl groups bonded to the oligomer (Abstract). The polyester oligomer is prepared by reaction of a polybasic acid and a polyhydric alcohol (Col. 2, lines 44-46). Production example II describes the reaction of a tricarboxylic acid (trimellitic anhydride) and a diol (propylene glycol). The molar ratio of hydroxyl groups to carboxyl groups in the example is 4 (4.78 mole OH and 1.2 moles Carboxyl). No other example of a carboxylic acid- alcohol combination according to the present invention is provided.

Applicants respectfully call the Examiner's attention to *In re Arkley*, 455 F.2d 586, 587, 172 USPQ 524, 526 (CCPA 1972) which states:

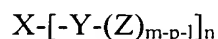
“[R]ejections under 35 U.S.C. 102 are proper only when the claimed subject matter is identically disclosed or described in “the prior art.” Thus for the instant rejection under 35 U.S.C. [102(b)] to have been proper, the . . . reference must clearly and unequivocally disclose the

claimed [subject matter] or direct those skilled in the art to the [subject matter] . . .”

Applicants respectfully submit that in view of the above discussion, Saitoh fails the Arkley test for anticipation as the reference does not disclose or suggest a molar ratio of hydroxyl groups of an at least one at least trifunctional alcohol or at least one diol to carboxyl groups of an at least one dicarboxylic acid or at least one tricarboxylic or higher polycarboxylic acid, respectively, of from 1.5/1 to 1/1.5. Accordingly, Applicants respectfully request that the rejection of Claims 1-5 and 7-9 under 35 U.S.C. 102(b) over Saitoh be withdrawn.

The rejection of Claims 1,2 and 5-9 under 35 U.S.C. 102(b) over Vrancken et al. (U.S. 4,082,710) is respectfully traversed.

Vrancken describes a composition containing a polyester of formula



where X is a carbon chain having between 14 and 90 carbons and n COOH groups and Y is an organic compound containing 0OH groups (Col. 1, lines 12-26).

The Office has pointed to compound 16 of Table I of this reference (Official Action dated October 21, 2009, page 4, paragraph 7). However, Applicants respectfully submit that as indicated in the Table, 1 mole of triacid is reacted with 3 moles of diol yielding a ratio of 2/1 and therefore not disclosing the description of Claim 1 as amended herein. Moreover, Applicants can find no suggestion within the description of this reference which would have led one of ordinary skill in the art, at the time of the invention, to the presently claimed invention. Therefore, Applicants submit that the cited reference can neither anticipate nor render the claimed invention obvious and withdrawal of the rejection of Claims 1,2 and 5-9 under 35 U.S.C. 102(b) over Vrancken is respectfully requested.

The rejection of Claims 3 and 4 under 35 U.S.C. 102(b) or in the alternative under 35 U.S.C. 103(a) over Vrancken is respectfully traversed.

Applicants note that Claims 3 and 4 both depend directly from Claim 1 and therefore include all the description of the independent claim. The failure of Vrancken to anticipate or render the invention according to Claim 1 obvious is described above. Accordingly, the cited reference can neither anticipate nor render Claims 3 and 4 obvious. Withdrawal of the rejection of Claims 3 and 4 under 35 U.S.C. 102(b) or in the alternative under 35 U.S.C. 103(a) over Vrancken is respectfully requested.

The rejection of Claim 6 under 35 U.S.C. 103(a) over Saitoh is respectfully traversed.

Claim 6 is herein amended to describe a molar ratio of hydroxyl groups of the at least one at least trifunctional alcohol or at least one diol to carboxyl groups of the at least one dicarboxylic acid or at least one tricarboxylic or higher polycarboxylic acid, respectively, is from 1.5/1 to 1/1.5. The failure of Saitoh to disclose or suggest this ratio is described above.

As Saitoh does not disclose or suggest all the description of Claim 6, the reference cannot render the invention according to Claim 6 obvious. Accordingly, withdrawal of the rejection of Claim 6 under 35 U.S.C. 103(a) over Saitoh is respectfully requested.

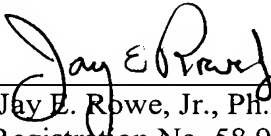
The objections to Claims 2-4 are believed obviated by appropriate amendment. Claims 2-4 are amended herein to use wording and structure consistent with U.S. patent law. Applicants respectfully request withdrawal of the objections.

Applicants respectfully submit that a complete oath was filed in this application on April 11, 2006, as indicated in PAIR. The ADS describes this Application as the National Stage of PCT/EP04/11254 and the declaration identifies the PCT Application and correct filing date. Applicants respectfully request that the Examiner contact their U.S. representative at the below provided telephone number to discuss this issue if the Examiner continues to believe the Declaration is defective.

Applicants respectfully submit that the above-identified application is now in condition for allowance and early notice of such action is earnestly solicited.

Respectfully submitted,

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